

ANTIQUARIAN NOTICES

OF

LEPROSY AND LEPER HOSPITALS IN SCOTLAND AND ENGLAND.

PART II. THE NOSOLOGICAL NATURE OF THE DISEASE.

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(*From the Edin. Med. and Surg. Journal, No. 150.*)

IN the preceding Part we have shown the extent to which leprosy prevailed during the middle ages in Great Britain ; the number of hospitals that were instituted for the reception and seclusion of the infected ; the government and regulations of these hospitals ; and the dates of the commencement and disappearance

of the disease in the kingdoms of England and Scotland. Before proceeding further, we propose,—in this Second Part,—to pause and discuss the strictly medical question of the specific nosological nature of the malady, whose history we have thus far considered.

I have already taken occasion to speak of the Leprosy of the middle ages, as identical with the species of cutaneous disorder, which has been variously denominated the Tubercular Leprosy, (*Lepra Tuberculosa*); the Leprosy of the Arabians, (*Lepra Arabum*); and the Elephantiasis of the Greeks, (*Elephantiasis Graecorum*). The particular form of chronic cutaneous disease, to which these different appellations have been severally applied, is an affection very distinctly marked in its more leading symptoms and course. Before, however, attempting to prove that the European and British leprosy of former times was specifically identical with the malady in question, it will expedite our investigation of the question, if, in the first instance, we obtain a precise and perfect picture of the Tubercular or Arabian leprosy itself. By adopting this plan, we shall have placed before us a standard, as it were, by which we can judge of and test those more or less imperfect descriptions of the leprosy of the middle ages, which we may in the sequel have occasion to quote and animadvert upon. And, in order to obtain such a standard of comparison as we have now in view, and that without any possibility of prejudging the subject, I shall cite the description of this species of disease from Dr Bateman of London, and Dr Schedel of Paris;—from the first, because the characters which he has given of this and other cutaneous affections are generally and justly looked upon by British pathologists, as the most clear and distinct that can anywhere be referred to;—and from the last, because his account of tubercular leprosy is, I believe, the latest that has issued from the medical press, and the author has already, by a former work,* distinguished himself by the excellence of his descriptions, and the precision of his diagnosis of cutaneous diseases.

Modern Descriptions and Definitions of Tubercular Leprosy.

“The Elephantiasis,” says Dr Bateman,† “(as described by the Greeks), is principally characterized by the appearance of shining tubercles, of different sizes, of a dusky red or livid colour, on the face, ears, and extremities; together with a thickened and rugous state of the skin, a diminution or total loss of its sensibility, and a falling off of all the hair, except that of the scalp.

“The disease is described as very slow in its progress, sometimes continuing for several years, without materially deranging the functions of the patient. During this continuance, however, great

* *Abrégé Pratique des Maladies de la Peau*, (1828.) par M.M. Cazenave et Schedel.

† *Practical Synopsis of Cutaneous Diseases*, (edit. of 1829) 411, 412.

deformity is gradually produced. The alae of the nose become swelled and scabrous, and the nostrils dilate; the lips are tumid; the external ears, particularly the lobes, are enlarged and thickened, and beset with tubercles; the skin of the forehead and cheeks grows thick and tumid, and forms large and prominent rugæ, especially over the eyes; the hair of the eyebrows, the beard, the pubes, axillæ, &c. falls off: the voice becomes hoarse and obscure; and the sensibility of the parts affected is obtuse, or totally abolished, so that pinching or puncturing them gives no uneasiness. This disfiguration of the countenance suggested the idea of the features of a satyr or a wild beast; whence the disease was by some called *Satyriasis*, and by others, *Leontiasis*.

"As the malady proceeds, the tubercles begin to crack, and at length to ulcerate: Ulcerations also appear in the throat, and in the nose, which sometimes destroy the palate, and the cartilaginous septum; the nose falls, and the breath is intolerably offensive. The thickened and tuberculated skin of the extremities becomes divided by fissures, and ulcerates, or is corroded under dry sordid scabs, so that the fingers and toes gangrene, and separate, joint after joint."

The description of the course and symptoms of the disease, as given by Schedel, is more minute and detailed.

"*Lepra tuberculosa*, or Greek Elephantiasis, is," (he observes, *) "characterized by the eruption of fawn-coloured or yellowish-brown tubercles, various in size, irregular in shape, somewhat shining, and soft and smooth to the touch. These tubercles are preceded by erythematous patches, in which the sensibility of the skin is diminished: slightly elevated at their outset, they become afterwards more projecting, whilst the sensibility of the parts is usually quite lost, although they are sometimes painful when touched. They more frequently occur upon the face, the nose, the ears, the lips, &c.; and being accompanied with a thickened and rugous state of the skin, they cause a most hideous distortion of the features, and frightful deformity.

"The evolution of the leprous tubercles is usually preceded by that of slight erythematous patches of a tawny red hue in whites, and blacker than the surrounding integuments in negroes. These patches are worthy of attention, since they announce the dreadful disease which is about to appear. When they are of some duration, the skin in these points already begins to lose its sensibility. Sooner or later, in some cases quickly, in others very slowly, small, soft, livid red tumours appear, varying in size from that of a pea to that of a walnut, or even larger. When these tubercles come

* Library of Medicine, edited by Dr Tweedie, Vol. i. (London, 1840), p. 413. Among his list of Synonymes, Dr Schedel gives "The Tsarath of Moses; *Lepra Hebraeorum*; *Lepra Egyptica*; *Lepra*; *Lardrelic*," &c.

out, the erythematous patches, on which the sensibility of the integument had become lessened, sometimes becomes painful; so much so, that we have heard patients declare that the pain produced by the handling of the small tumours at this period was similar to that felt when the cubital nerve receives a blow at the elbow. When they appear on the face, they are generally accompanied by a puffy swelling of the surrounding parts.

“ Sometimes only small surfaces are attacked. We have seen the nose and ears alone affected, and much swollen and enlarged. When the disease occurs on the lower extremities only, it is found on the inferior part of the thigh, and around the ancles.

“ After remaining stationary for a longer or shorter time, the disorder increases: instead of a few tubercles to be met with here and there, the whole face is covered with large dusky red lumps, separated by deep furrows; the features are horribly distorted; the alæ of the nose are thickened and swollen; the nostrils dilated; the eye-brows tuberculated and overhanging; the lips enormously thickened; the skin of the forehead and cheeks is thick, uneven, and tumid; the chin much increased in size, and the whole of the affected surfaces appear as if smeared with oil, and of a dusky livid red; the external ears, especially the lobes, are much enlarged and thickened, and beset with tubercles; the eye-brows and eye-lashes and beard fall off; the sense of smell becomes impaired or totally lost; that of touch is often strangely affected; the voice grows husky, and is frequently lost; the eyesight is greatly weakened; the unfortunate patient is dejected; and the muscular powers depressed in a singular manner. With regard to the *libido inexplicabilis*, so much spoken of, our observations do not coincide with those of Dr Adams, who mentions actual wasting of the generative organs. In the cases which have come under our notice, we have witnessed quite the reverse, and yet several were young men in whom the disease was not too far advanced.

“ At a still later period the symptoms are even more dreadful: the tubercles become the seat of ulceration, and sores of an unhealthy character succeed, and discharge an ichorous fluid, which, on concreting, form dark adherent scabs of various extent and thickness; these incrustations are sometimes followed by cicatrices, but this is unfortunately a rare occurrence. On the extremities, the thick and tuberculated skin becomes divided by fissures, and ulcerates or is corroded under the dry scabs, so that the fingers and toes mortify and separate joint after joint, the miserable patient surviving these horrid mutilations. Those individuals whom we have seen perish from this disease were carried off by enteritis: large ulcerations were found in the ilium, cæcum, and colon, ex-

cepting in one case, in which death was caused by tubercular plithisis."

In studying the phenomena of this, as of any other disease, it will simplify our recollection of its more leading and more constant characters, if we have the principal symptoms of it embodied in a concise nosological definition, instead of being spread through a long and a detailed description. Two of our last and best British nosologists give the following definition of Tubercular leprosy or Greek elephantiasis, (for I use these terms here and elsewhere as words perfectly synonymous.)

"Elephantiasis," (says Dr Cullen,) "is a contagious disease, with, (1.) the face deformed with tubercles; (2.) the skin thick, wrinkled, rough, unctuous, and divested of hair; (3.) loss of feeling in the extreme joints, and (4.) the voice is hoarse and nasal."*

In defining the genus Elephantiasis, Dr Good selects the second and third characters of Cullen as the most distinctive, and adds to these two others, viz. "(1.) eyes fierce and staring; (2.) perspiration highly offensive." In defining the first species of this genus, (or the Greek elephantiasis of other authors,) he introduces as its three pathognomonic symptoms, the first and fourth characters of Cullen and a part of the second.†

NOMENCLATURE OF THE DISEASE.

Leprosy, such as it is portrayed in the descriptions and definitions which we have quoted from Bateman, Schedel, Cullen, and Good, (and I might have cited any of our modern medical writers to the same effect) has had at different times, and by different authors, a great variety of appellations applied to it. In order to understand the nosological nature of the disease, as it formerly prevailed in Europe, it is requisite to state a few uninteresting but indispensable facts, in regard to the changes which have occurred in its nomenclature.

In the medical writings of Arctæus, Aetius, and the later school of Greek physicians, the disease is described under the title of Elephantiasis, for (says Arctæus) "it is disgusting to the sight, and terrible in all respects, (*est visu fædus et in omnibus terribilis*,) like the beast of the same name."‡ The Arabian medical authors

* "Morbus contagiosus, cutis crassa, rugosa, aspera, unctuosa, pilis destituta; extremis artubus anaesthesia; facies tubercibus deformis; vox rauca et nasalis." *Synopsis Nosologiae Methodicae*, (1772,) p. 369.

† Class III., Order IV., Genus VIII. *Elephantiasis*; (1.) Skin thick, livid, rugose, tuberculate; (2.) Insensible to feeling; (3.) Eyes fierce and staring; (4.) perspiration highly offensive." Species I. (Tubercular or Arabian Leprosy of authors.) "(1.) Tubercles chiefly on the face and joints; (2.) Fall of the hair except from the scalp; (3.) Voice hoarse and nasal; contagious and hereditary." *Good's Physiological System of Medicine*, (1817,) p. 257, 258.

‡ *De Causis et Signis Morborum*, p. 69. (Leipsic. edit. of 1735.)

applied the corresponding term of "*Das Fil*," "Elephant disease," or Elephantiasis, to an affection entirely different, and one apparently unknown to the Greek physicians, namely, the tumid, Barbadoes, or Cochin Leg of modern pathologists. At the same time the Arabian authorities described the disease, known to the Greeks under the name of Elephantiasis, by the Arabic terms "*Judam*," or "*Juzum*" and "*Aljuzam*."* The confusion thus apt to arise from describing two different diseases under a corresponding name, was greatly increased by the errors committed by the Latin translators of Avicenna, Rhazes, and other Arabic authors. These translators rendered the *Das fil* or Elephant disease of the Arabic original, by the words *Elephanta* and *Elephantiasis*; and having thus, first, by an improper adaptation, appropriated the use of the latter Greek term, to a disease very different in its specific characters from the Elephantiasis of the Greeks themselves, they subsequently added to the intricacies of the subject, by translating the Arabic "*Juzam*," (the disease that was in reality identical with the Elephantiasis of the Greeks,) by the term *Lepa*; a term which the Greek physicians had generally applied to different forms of scaly eruption, but never to any form of tubercular disease.†

By these unfortunate mistakes, medical men were betrayed into great confusion in the use of these several terms. An identity in names did not signify an identity in objects. The tumid leg, *das fil*, or elephantiasis of the Arabians, is a disease perfectly different from the tuberculous face affection or elephantiasis of the Greeks.

Again, the term *Lepa*, as used by the Greek physicians themselves, signifies morbid changes in the skin marked by the presence of scales, and which changes in the skin have no relation whatever to either the Arabian or Greek elephantiasis; but the same term *lepra*, as used by the Arabic translators, was applied to designate the latter of these two affections, viz. the Arabic "*Juzam*," or elephantiasis of the Greeks. Hence, the *Elephantiasis of the Greeks* and the *Lepa of the Arabians*, or more properly of the Arabian translators, are expressions altogether synonymous as

* The disease is still designated in different parts of Asia and Africa by the same terms, more or less slightly changed. In his travels in Africa, Egypt, and Syria, (p. 332,) Browne speaks of elephantiasis under the local designation of *d-zudham*; Niebuhr says it is still named in Arabia and Persia *dsjuddam* and *Madsjuddam*. (Pinkerton's Collection of Voyages and Travels, Vol. x. p. 170.) In Morocco it is called at the present day *Jeddem* and *Murd Jeddem*.—(Jackson's Account of the Empire of Morocco.)

† The remark in the text applies to nearly all the numerous Latin versions made from the Arabic. It is proper, however, to add, that the translator of the works of Haly Abbas has so far avoided the error alluded to, by translating the *Juzam* of his author by *Elephanta*. With this single exception, the error might otherwise, I believe be called universal.

being employed to designate the same individual disease ; and it is of the first importance to hold this fact in view, in studying the histories of the European leprosy, which have been left us by our own and by other medical authors of the middle ages.* For we must further recollect, that the knowledge of the Greek tongue was almost entirely lost during the dark ages, and that nearly all learning being then confined to the Moors and Arabs, the scholastic language was principally the Arabic. Thus it happened, that when the love of literature and the pursuit of science began to revive about the twelfth century, the medical as well as the philosophical writings of the ancient Greeks were read and studied by the inhabitants of Western Europe, through the medium of Arabic translations of them, or in Latin versions made from these translations.† The designations of individual diseases were known to the learned student, and to the medical practitioner and author of the times in question, by the names only under which they were described in these versions. The *Elephantiasis* of the Greeks, or corresponding *Juzam* of the Arabians, was rendered by the term *Lepra* in almost every Latin translation from the Arabian or Saracenic school ; and hence it is that we find this term *Lepra* used by the medical and other authors of the succeeding period, as the common appellative for the individual disease to which the two former designations were originally applied. In many medical works of the middle ages the single name “ *Lepra*”‡ is employed ; in the writings of others, and more particularly of later authors, it has the distinctive designation (*Lepra Arabum*,) added to it,§ in order to discriminate it from the *Lepra Graecorum* or scaly eruptions, to which that term was primarily applied by the Greeks. In still more modern times, and with the same view, the *Elephantiasis Graecorum*, *Juzam*, or *Lepra* of the Arabians or ra-

* The Arabians (i. e. the Latin translators from the Arabians), and their expositors, as was long ago remarked by Eustachius Rudius, and as has been often repeated since “ per Lepram nil aliud intelligunt præter Elephantiasim.” (De Affectibus Externarum Corporis Humani Partium, Venet. 1606, p. 24.

† See Bostock's History of Medicine (New York edition of 1836,) p. 43 and 47, or Chapters vi. and vii.

‡ This appropriation of the single term “ *Lepra*” for the designation of Greek Elephantiasis is still adhered to by some modern authors. Thus Plenck, in his celebrated Nosology of Cutaneous Diseases, denominates (after the example of the translators from the Arabic), the Barbadoes leg “ *Elephantiasis*,” and applies to the Greek Elephantiasis the simple term “ *Lepra*.” Hence he defines *Lepra* to be “ that disease in which the skin, particularly of the face, becomes rugous and irregular (*aspera*), and is deformed with large reddish-livid and elinked tubercles (*rimosis tubercibus*), along with insensibility of the extremities, and the voice raucous and nasal.” (Doctrina de Morbis Cutaneis, quâ hi morbi in suas Classes, Genera, et Species rediguntur (1783), p. 67. See also Schilling in his Commentio de Lepra, (1778), p. 2, &c.

§ As in the works on Cutaneous Diseases by Turner, (Treatise of Diseases incident to the Skin,) (1736,) p. 2 ; and Lorry, (Tractatus de Morbis Cutaneis,) p. 376, &c. &c.

ther of the Arabian translators, has been very frequently termed, (as I believe was first proposed by Vidal,*) tuberculous leprosy, (*Lepra tuberculosa*,) in order to distinguish it from the other very different disease, the scaly leprosy of the Greeks, (*Lepra vulgaris*, *Lepra squamosa*, &c.) But whatever may be the difference in the nomenclature of different authors, we are to hold this in recollection, that the various terms of the Elephantiasis of the Greeks, (*Elephantiasis Graecorum*,) the Juzam or Leprosy of the Arabian translators, (*Lepra Arabum*,) the Tuberculous Leprosy of modern European authors, (*Lepra tuberculosa*, *Lepra nodosa*,) and the simple Leprosy (*Lepra*) of most authors of the middle ages†—all signify that same specific and individual disease, whose distinctive characters we have already traced from Bateman and Schedel, and from Cullen and Good.

SPECIFIC CHARACTER OF THE LEPROSY WHICH PREVAILED DURING THE MIDDLE AGES.

Having premised the preceding tedious but necessary digression upon the nomenclature of leprosy, we now proceed to consider the question whether the particular form of disease that prevailed on the Continent and in Great Britain during the middle ages, and for the victims of which so many hospitals were built, and so many laws enacted, answered or not, in its nosological characters, to the *Elephantiasis Graecorum*, *Lepra Arabum*, or Arabian leprosy, such as we have found that malady depicted in the standards already referred to, and such as it is known to prevail at the present day in different localities in the new and old world, that I shall afterwards take occasion to specify. We begin our inquiry into the nature of the disease, by considering the characters of the leprosy as it was seen prevailing, almost epidemically, in the middle ages.

1. *Upon the Continent of Europe.*—To obtain a solution of this part of our problem, let us turn to the works of the medical authors of these early times, and endeavour to ascertain from them the nature of the disease which they denominated leprosy.

Various minute descriptions of leprosy (*lepra*) have been left us in the writings of different European physicians and surgeons of the middle ages, who had an opportunity of studying the disease in different kingdoms upon the continent during the period

* *Memoires de la Societ  Royale de Medecine* for 1782—3, p. 170. Alibert employs this term in his *Monographie des Dermatoses*. (1835,) Tome ii. p. 270.—

† “*Elephantiasis a vulgo Medicorum Lepra vocata et quibusdam Sancti Lazari morbus*” “*Elephantiasis quam vulgus male Lepram appellat.*” See p. 680 and 716 of the *Libri quinque Institutionum Chirurgicorum Joannis Tagaultii*, in *Uffenbach's Thesaurus Chirurgiae*, (Francof. 1610.)

of its actual prevalence. Amongst others, we may especially refer to the accounts of it, written during the 13th century, by the monk Theodoric,* afterwards a distinguished surgeon of Bologna; by the celebrated Lanfranc, who was first a practitioner in Milan,† and subsequently in Paris; and by Professor Arnold Bachuone,‡ of Barcelona, reputed in his day the greatest physician in Spain. Valescus de Taranta,§ a physician of Montpellier; Bernhard Gordon, || Professor of Medicine in the same city; the famous French Surgeon, Guy de Chauliac¶;—Vitalis de Furno** Cardinal of Albany; and Petrus de Argelata,†† a practitioner of Bologna, have each left us descriptions of leprosy drawn up during the 14th century; and during the two succeeding centuries, we have more or less accurate accounts of the disease given by Professors Montagnana‡‡ of Padua, and Matthew Ferrari de Gradi§§ of Pavia, by Ambrose Paré,||| Joannes Fernelius, ¶¶ Palmarius,*** Hildanus††† and various others.†††

Each of the several authors just now named have described, with greater or less precision, the symptoms of the prevailing leprosy, or chronic incurable cutaneous disease for the reception and seclusion of the victims of which the numerous lazarettos in Europe were established. The details which they all individually give of the leading characters of the malady,§§§

* Chirurgia secundum Medicationem Hugonis de Luco (In Arte Chirurg. Scriptorum collect. Venice, 1546), p. 175.

† Chirurgia Magna et Parva. In the same collection of Surgical works, p. 207, 208.

‡ Breviarium practicae a Capite ad plantam Pedis. Brev. ii. cap. 46.

§ Philonium Pharmaceuticum et Chirurgicum de medendis corporis affectibus; Frankfort, 1599, p. 659.

|| Lilium Medicinæ inscriptum de morborum prope omnium curatione (vide Opera Medica, Lugd. 1574, p. 49 s. q. q.)

¶ Chirurgiæ Tractatus vii., (Lugd. 1572), p. 307, s. q. q.

** Pro conservandâ Sanitate, &c. Liber utilissimus, (Mogunt. 1531), c. 202.

†† Chirurgiæ Libri Sex. (Venet. 1533,) Lib. v. 23.

‡‡ Selectionum operum, in quibus Consilia, &c. continentur, (Lugd. 1525), consil. 299.

§§ Consilia, secundum viam Avicennæ, ordinata, (Lugd. 1535), Consil. 299.

||| Les Oeuvres d'Ambrose Paré, (Lyons 1652), p. 476, &c. or Uffenbach's Thesaurus Chirurgiæ, (Frankfort 1610), p. 428, &c.

¶¶ Joannis Fernelii Ambiani Universa Medicina, (Geneva 1680), p. 579 and 517.

*** Julii Palmarii Constantini, Medici Parisienis, de Morbis Contagiosis Libr. Septem, (Frankfort 1601), p. 257—326.

††† Opera Observationum et Curationum quæ extant Omnia, (Frankfort 1646) p. 973.

††† See in Gesner's Collection "De Chirurgiâ Scriptores, &c," (Tiguri 1555,) a tract entitled "Examen Leprosorum."—Gregory Horst, Operum Medicorum, Tom. ii., (Norimberg 1660) p. 127. Franciscus de Porta, Medicæ Decad. cap. xxx. lib. 4, Von Forrester's Observationes Medicæ et Chirurgiæ, lib. iv. p. 103. Schenckius, Observationum Medicarum Rariorum, Libri vii., (Frankfort 1665) p. 803.

§§§ Several of the authors quoted above divide the *species* Lepra into four modifications or varieties; the Lepra Leonina, Lepra Elephantia, Lepra Alopecia, and Lepra Tyria. This division, which some of them freely allow to be founded more in theory

are in their essential points altogether similar; and the symptoms which they describe it as presenting are exactly those which distinguish Greek elephantiasis. The disease is portrayed with brevity and precision by some of them. Others enter into a detail of its phenomena, greatly more minute than the descriptions I have quoted from Bateman and Schedel; and several give a history of the marks to be derived from the blood, urine, extremities, eyes, face, voice, &c., in a manner so very elaborate and minute, as might surprise us at the present day, did we not recollect the immense importance that depended in these times upon a just and faithful distinction of the disease, when, in a suspected case, a fellow-being might,—by the absence of the more characteristic signs—be saved, or—by their presence—be condemned, for the remainder of life, to all the horrors of a leper-house. A few, as Guy de Chauliac, Argelata, &c. in the thirteenth and fourteenth centuries, and in still later times, Gregory Horst, Forrestus, &c. add a most minute and detailed account of the various symptoms which the physician ought to look for in examining a suspected person, and point out the exact mode in which he ought to proceed with this examination before venturing to consign a suspected person to the seclusion of a leper-hospital, and thus for ever doom him to be a despised “child of St Lazarus.”

In an essay such as the present, it would be out of place to attempt to show by the exact words of each of the authors to whom I have just now alluded, the truth of the proposition, that the *Lepra* in their writings, and consequently the *Lepra* of Europe in their times, was strictly identical with the *Elephantiasis* of the Greeks, and that the leper hospitals were specially intended for those affected with this disease. As examples, however, of the whole, I may cite the observations of two of the authors whom I have named; and I shall select for this purpose Gordon and Guy de Chauliac, principally from their two names standing higher in medical history than most of the others that I have enumerated—from their living at a time when the disease was most prevalent,—

than in nature, seems to have been first proposed by Constantinus Africanus. (*De Morborum Cognitione*, chap. 17.) Like the fanciful fourfold subdivision of other diseases, it was made in correspondence with the Hippocratic and Galenic doctrine of the four humors. Theodorick, Arnald, Gilbert, and the other authors who, in accordance with the pathological creeds of the time, were led to adopt it, attribute each particular variety to the operation and predominance of a particular humor. John of Gaddesden has attempted in his *Rosa Anglica*, to dress up different medical doctrines in rude Latin hexameters, and amongst others, he announces the doctrine in question in the five following lines:

Sub specie tetrâ deturpat corpora LEPRÆ;
 TIRIA prima datur, de *stegmate* quæ generatur;
 Turpe pilos pascens ALOPICUS, sanguine nascens;
 Fitque LEONINA, colera fervente canina;
 De Mel (*Melancholia*) fit tristis ELEFANTIA, tristior istis.

and from their descriptions of the malady itself being on the whole more than usually concise and methodic.

Bernhard Gordon was, at the commencement of the fourteenth century, one of the first, if not the first Professor of Medicine in the newly established school of Montpellier. "He has left us, (says Dr Freind, *) a large volume called *Lilium Medicinæ* (for in that affected age everything writ in Physick, was either a Lily or a Rose) a book mightily celebrated in those times." This volume is generally stated to have been written about the year 1305 † or 1309. ‡ From the very long chapter which is devoted in this work to the consideration of leprosy, I shall translate the account which the author gives of his threefold stages or classes of symptoms of the disease, viz. the occult, the infallible, and the last or terminating signs.

1. "The occult premonitory signs (*signa occulta in principio*) of leprosy are (he states) a reddish colour of the face, verging to duskiness; the expiration begins to be changed; the voice grows rauous, the hairs become thinned and weaker, and the perspiration and breath incline to fetidity; the mind is melancholic with frightful dreams and nightmare; in some cases scabs, pustules, and eruptions, break out over the whole body; the disposition of the body begins to become loathsome, but still while the form and figure (*forma et figura*) are not corrupted, the patient is not to be adjudged for separation, but is to be most strictly watched (*nondum est judicandus ad separationem, sed est fortissime comminandus.*)

2. "The infallible signs (*signa infallibilia*) are enlargement of the eyebrows, with loss of their hair; rotundity of the eyes; swelling of the nostrils externally, and contraction of them within; voice nasal; colour of the face glossy (*lucidus*), verging to a darkish hue; aspect of the face terrible, with a fixed look, and with acumination and contraction of the pulps of the ears. And there are many other signs, as pustules and excrescences, atrophy of the muscles, and particularly of those between the thumb and forefinger; insensibility of the extremities; fissures and infections of the skin; the blood, when drawn and washed, containing black, carthy, rough, sandy matters, and other marks which authors prominently mention, but for me, those suffice which are to be found in the face. The above are those evident and manifest signs, which, when they do appear, the patient ought to be separated from the people, (*quibus apparentibus patiens est a populo sequestrandus*, or, in other words, secluded in a leper-house.)

3. "The signs of the last stage, and breaking-up (*naufragium*) of the disease are, corrosion and falling-in of the cartilage, forming

* The History of Physick, 5th edit. 1753, Vol. ii. p. 263.

† Freind, p. 262. ‡ Sprengel, Vol. ii. p. 448.

the septum of the nose ; fissure and division (*scissura*) of the feet and hands ; enlargement of the lips, and a disposition to glandular swelling ; dyspnœa and difficulty of breathing ; the voice hoarse and barking ; the aspect of the face frightful, and of a dark colour ; and the pulse small and imperceptible.”*

After giving the above accurate description of the Leprosy, Gordon in a subsequent page,† earnestly states, “ no one ought to be adjudged as a leper, unless there manifestly appear a corruption of the figure, (*corruptio figuræ*, or that state which is indicated by his *signa infallibilia*). And I repeat to you this, (he adds,) as often as I have occasion to mention the *corruptio figuræ*, because, as it appears to me, lepers are at the present day very injudiciously adjudged. Whoever, therefore, has ears, let him attend to this, if he will.”

The other medical author, whom I particularized for quotation, Guy de Chauliac, practised first at Lyons, and afterwards at Avignon. He was one of the most celebrated surgeons in the fourteenth century,‡ and was successively medical attendant upon Popes Clement VI. and Urban V.§ From the notice which he gives of the Black Death Pestilence of 1363, it would seem that he was then stationed at Avignon, and engaged in the composition of his “ *Inventarium sive Collectorium Partis Chirurgicæ Medicinæ*.” In the long disquisition on *Lepra*, contained in the 6th treatise of this work,|| De Chauliac, after stating the usual subdivision of the disease into four varieties or species, (*Elephantia*, *Leonina*, *Tyria*, *Alopecia*), goes on to describe the common signs of all the varieties of leprosy, (*signa communia Omnium specierum Lepre*). The signs or symptoms indicating the actual presence of the disease are, he says, some unequivocal, others equivocal, (*quædam univoca, quædam equivoca*). Among the former set (*signa univoca*) he ranges the six following symptoms : “ (1.) rotundity of the ears and eyes ; (2.) thickening and tuberosity of the eyebrows, with falling off of their hair ; (3.) dilatation and disfiguration of the nostrils externally, with stricture of them within, and fetidity of the lips ; (4.) voice raucous and nasal ; (5.) fœtidity of the breath, and of the whole person : (6.) fixed and horrible satyr-like aspect.”

I question if any of our modern nosologists, or any recent writers on cutaneous diseases, have proposed a more correct definition or accurate and concise diagnosis of the *Elephantiasis Græcorum*

* Bernhardi Gordonii Opera Medica, Lugd. 1542, p. 48 and 49.

† Ib. p. 54.

‡ See Freind, Sprengel, Eloy, &c.

§ In the *Biographie Universelle, ancienne et moderne*, Paris, 1813, Tom. viii. p. 293, a third Pope, Innocent VI. is added to this list.

|| *Chirurgiæ Libri Septem*, Lugd. 1572, p. 307, sqq.

than is presented in the above enumeration of its pathognomic symptoms by the old French surgeon.

De Chauliac adds a list of sixteen signs of leprosy, which, from their not being constant, he terms equivocal (*equivoca*). Among these, he gives tuberosity and hardness of the flesh, particularly of the joints and extremities; insensibility and feeling of torpor in the limbs; falling off of the hairs; tubercles (*grana*) under the tongue and palpebrae, and behind the ears; an unctuous condition of the skin, as seen when water is thrown upon it; with symptoms from the blood, urine, &c. "By these unequivocal and equivocal signs, lepers (says he) are examined; but (he judiciously goes on to observe), in the examination and judgment of lepers, there must be much circumspection, because the injury is very great, whether we thus submit to confinement, those that ought not to be confined, or allow lepers (*leprosos*) to mix with the people, seeing the disease is contagious and infectious. Therefore, ought the physician repeatedly to examine the affected, and consider and reconsider those signs which are unequivocal, and those that are equivocal, and let him not venture to judge by one sign, but by a concurrence of many, and particularly of those that are unequivocal."

De Chauliac subsequently details at great length the precise mode in which the physician ought to conduct the examination of every suspected case of leprosy referred to him. The patient is, first of all, as we shall afterwards see, recommended to be consoled upon his unfortunate lot, and sworn in to tell the truth in answer to all the interrogatories put to him. In immediately afterwards proceeding to the examination itself, De Chauliac orders inquiries to be instituted into the predisposition, hereditary or otherwise, of the suspected individual; if he were exposed by intercourse with the infected; if his mind were clear and tranquil; if he feels punctures in the flesh, &c. He then recommends the pulse to be examined, and some blood drawn, and treated in such a manner by inspection and straining, as to ascertain its colour, its sediment, the quality of its coagulum, &c. After this he recommends the countenance to be considered, and the patient dismissed for the day, with an order to bring a specimen of his urine with him on the following morning. "In the meantime," he adds, "let the physician cogitate upon what he has seen, and what he may yet see in the case."

"On the morrow, when the suspected person returns to the physician, let the latter, in the first place, examine the urine, and consider if it shows any sign of disposition towards leprosy. All this being done, let him next again consider the face, and ascertain in regard to the eyebrows if they have lost their hair, and if they are swollen and tuberoso; if the eyes themselves are round, parti-

cularly towards the internal angles, and if the whites of them are of a darkish hue ; in regard to the nose, if it be deformed, enlarged, and internally ulcerated ; in regard to the eyes, if they are rounded and shortened ; in regard to the voice, if it is raneous and nasal ; in regard to the lips and tongue, if they are ulcerated and tuberculated ; if the breathing be difficult and fœtid ; and if the features be changed and frightful. And let the examiner consider these things deeply, because the signs from the face are more certain than the others. Afterwards make the person strip himself naked, (*ipsum expoliare*), and examine concerning the colour of the whole body, if it is darkish and morphous ; concerning the substance of the flesh, if it is hard and irregular, and tuberosc, particularly about the joints and extremities ; if it is scabrous, pruriginous, or serpiginous and ulcerous ; if its corion is rough, like the skin of the goose ; and if the muscles are consumed ; if there is a feeling of sleeping in the limbs ; if he feels perfectly when pricked along the back of the leg, and is certain in respect to the spot and kind of instrument. Then pour water upon his body, and see if it is unctuous, and if salt adheres to it, when it is thrown upon its surface. Lastly, let the physician return again to the consideration of the face and countenance, and with that dismiss the person.

“ Let all the ascertained signs (cautiously, adds our author), be pondered over, and let the physician deliberate naturally concerning these signs, both individually and in concurrence. If he should find that the suspected person has, along with a disposition to leprosy, some of the slighter equivocal signs of the disease, the individual is to be watched at his own house, and secretly, that he may be placed upon a good regimen, and have the advice of medical men, otherwise he will truly become leprous. If, however, he presents many equivocal with a few of the unequivocal signs, he is vulgarly termed *cassatus* (marked, denounced) ; and such individuals must be narrowly watched, in order that they take a proper regimen, and have the good advice of physicians ; and in order that they confine themselves within their own houses and mansions. Let them not freely mix with the people, because they are sinking into leprosy. If, again, they are found with many, both of the unequivocal and equivocal signs, they must be separated with kind and consoling words, from the people, and committed to the leper hospitals (*in Malanteria ducendi*). But if they are sound, they must be set free, (*absolvendi*), and sent with a medical certificate to the Rector.”

It would, I believe, be considered altogether a work of supererogation to append to the preceding details by Gordon and Guy de Chauliac, any formal remarks in the way of comparing the

Lepra of the fourteenth century with the *Elephantiasis Græcorum* of Bateman, Schedel, or any of our modern standards, and thus insisting further upon the perfect and entire identity of the individual disease passing under these two different designations. The accounts given of the malady by the two ancient and the two modern writers just named, undoubtedly agree as exactly as we ever find the accounts of one and the same disease by four different authors to do; and, as I have already said, the same remark might be extended to the relative early descriptions of the lepra, as left by numerous other authors in these times, and the recent descriptions of the *Elephantiasis Græcorum*, as drawn up from personal observation in different parts of the world by Kinis, Ainslie, Heineken, Casan, Cazenave, and the other modern writers, that I shall afterwards have occasion to refer to when speaking of the present geographical *habitats* of the disease.

But indeed the intrinsic evidence which is afforded by the extracts that I have given from Gordon and De Chauliac, and by the other similar descriptions to which I have referred in the works of the medical authors of the thirteenth and fourteenth centuries, renders it unnecessary to add here any further comment to prove the double proposition, *first*, that the leprosy of the middle ages, as the disease prevailed upon the continent of Europe, was identical with the *Elephantiasis Græcorum*; and *secondly*, that it was for the victims of this specific malady that the numerous leper hospitals were established, they alone being the individuals who were intended to be (in the language of Gordon and De Chauliac) adjudged, separated from the people, and consigned to the lazarus-houses (“*judicati*”—“*a populo sequestrandi*” “*in Malanteria ducendi*.”)

So far with regard to leprosy, as seen and described by the early continental authors. Let us now return to the nature of the disease as it prevailed in Great Britain.

2. *Nature of the Leprosy in England.*—Reasoning analogically, it may certainly, with the greatest probability, be presumed, that the incurable disease which is known in the lazarus-house charters and older histories of this country, under the same name as on the continent,—which prevailed here during the same periods as on the continent,—and for which the same systems of medical seclusion and police were adopted,—was entirely the same disease as that described by and known to the continental medical authors of the middle ages.

To some minds, such considerations may in themselves be sufficient to fix the identity of the disease, as it prevailed on the continent, and as it prevailed in our own country; and certainly they tend very strongly to show that if, as I have attempted to prove,

the epidemic leprosy of continental Europe was the Tubercular or Arabian leprosy, the leprosy of England and Scotland was of the same specific nature. But I believe I can adduce still more direct and satisfactory evidence to establish this important point.

The first valuable medical work by an English author that has been transmitted to us is the *Compendium Medicinæ* of Gilbert.* This author is generally supposed to have lived about 1270, in the reign of Henry III. or Edward I.† Balc places him even much earlier.‡

Gilbert has a chapter headed “*De Lepra.*” In this chapter he describes very minutely the four usual modifications of *Lepra*, (the *Elephantia*, *Leonina*, *Tyria*, and *Alopecia*,) varieties which, he himself observes, are rarely found pure and simple, but generally mixed together (*compositas*).§ To quote in proof of this his long and very detailed account of the disease would occupy much space and only lead to repetition. That the description, however, which Gilbert has drawn of the leprosy of the middle ages is one of the most just and accurate penned during these times, has been often and freely admitted by Sauvages, Sprengel, and other competent judges. Further, that the *Lepra* as described by Gilbert, and as understood by him and his contemporaries in England, meant the *Elephantiasis* of the Greeks, is evident (without going into particulars) from the simple fact, that the sagacious Sauvages refers and quotes this chapter of Gilbert’s on *Lepra* as one of the best descriptions extant of Greek *Elephantiasis*.||

In an official report given in to the Royal Society of Medicine of Paris in 1782, upon the Greek *Elephantiasis*, the reporters, MM. Chamseru, and Coquereau, specially allude to Gilbert’s description as the most clear exposition of it to which they could refer.¶ Again, in an analysis of the works of this early English author, the learned Professor Sprengel observes, “Gilbert sometimes relates, though very rarely, observations which are proper to himself, and which deserve to be quoted. In this number I include particularly those concerning leprosy. We may almost

* *Gilberti Anglici Compendium Medicinæ, tam morborum universalium quam particularium, non solum medicis sed et chirurgicis utilissimum.* Vienna, 1510.

† Eloy’s *Dictionnaire Historique de Médecine Ancienne et Moderne*, 1778, Tome ii. p. 349. Aitkin’s *Biographical Memoirs of Medicine in Great Britain*, 1780, p. ix.

‡ Freind’s *History of Medicine*, 5th edition, Vol. ii. p. 268.

§ *Compendium Medicinæ* (ut supra) p. 340.

|| *Nosologia Methodica*, Tome v. p. 229. Before citing Gilbert’s description, Sauvages observes, “*Plures hujus morbi (Elephantiasis,) varietates sunt quarum nomina et signa ex Gilberto Anglo mutuabimur, loco Lepreæ Elephantiasin nominando.*”

¶ *Memoires de Médecine et de Physique Médicale tirés des Registres de la Société Royale de Médecine, Années 1782–83*, p. 200. Speaking of the Greek *Elephantiasis* or *Elephantiasis Legitima* of Sauvages, they observe “*on ne trouvoit nulle part, pas même dans Arétée de Cappadoce, une exposition plus claire que celle qui a été donnée par Gilbert, Médecin Anglois du seizième (?) siècle.*”

look upon them as the first exact description which has been given of that malady by the Christian physicians of the west. The spots which foretell it, and the signs of its first invasion, are at least described by him in a manner agreeable to nature, &c.”*

Here then, we have the direct and positive evidence of an English physician of the thirteenth century, that the term *Lepra* was then used in this country specially to designate the varieties of Greek elephantiasis; and I might adduce, (if it were at all necessary,) to demonstrate exactly the same circumstance, the chapter which John of Gaddesden, Professor of Medicine in Merton College, Oxford,† and Court physician to Edward II., has devoted to *Lepra* or *Elephantiasis* in his famous *Rosa Anglica*, a work written towards the commencement of the succeeding or fourteenth century.‡ In this “*Opus luculentum et eruditum*,” (as at least Leland terms it,)§ the author describes at considerable length the nature, causes, and premonitory signs, &c. of *lepra* and its varieties, and enters minutely into the pathognomonic signs (*signa demonstrativa infallibilia*) of the disease, as respectively taken from the face, from the extremities, from the blood, and from the humors of the body. A quotation from his signs of *Leprosy*, as taken from the face, will at once show that by that term (*Lepra*) he meant the Greek *Elephantiasis*. I shall give the passage in his own words. “*A Facie, rotundatio oculorum, contractio palpebrarum, lacrimositas multa et aquositas oculorum, depiliatio superciliorum et grossities eorum; dilatatio narium exterius et constrictio interius, et coartatio anhelitus, quasi si cum naribus loqueretur. Et color faciei lividus vergens ad fuscenedinem mortificatam. Terribilis aspectus faciei cum fixo intuitu. Contractio et palpebrarum et aurium. Infectio cutis maculosa. Tuberositas et pustulæ in facie et nodositas. Ista omnia et major pars sunt infallibilia signa lepræ actualis.*”|| In a subsequent part of his chapter on *Lepra*, John of Gaddesden strongly states, that “no one is to be adjudged a leper, and separated from intercourse of mankind, (*ab hominum conversatione separandus*) until the figure and form of the face is actually changed. Hence cancer (gangrene?) in the feet, or foul scabbing, must not be considered as arguing the pre-

* Sprengel's *Histoire de la Médecine*, (Jourdain's translation.) Tome ii. p. 404.

† Anthony Wood's *Athenae Oxonienses*, p. 87.

‡ Wood gives his name as entered in an old College Catalogue in 1320. He compiled his book between 1305 and 1317, Freind, Vol. ii. p. 277; and Eloy, Vol. ii. p. 287. See also Hutchison's *Biographia Medica*, Vol. i. p. 323; and Aitkin's *Biographical Memoirs*, p. ix., &c.

§ Guy de Chauliac entitles Gaddesden's book (probably with more truth) “*una fulta Rosa Anglica*.”

|| *Rosa Anglica* quatuor Libris distincta, (Papiæ, 1492.) Lib. ii. cap. vii. p. 55; or *Joannis Anglici Praxis Medica*, *Rosa Anglica dicta* (Schopfflin's edit. 1595,) p. 1076, sqq.

sence of leprosy, nor nodosities, unless they appear on the face and with the aforesaid conditions.”*

The testimony of Bartholomey Glanville, an English author of the latter part of the fourteenth century,† may be adduced in support of the same view. In his work “*De Proprietatibus Rerum*” he describes persons affected with Leprosy (*Lepra*) as having “redde Whelkes and Pymples in the Face, out of whome oftenne runne Blood and Matter: in such the Noses swell, and ben (become) grete, the vertue of Smellynge faylyth, and the Brethe stynkyth ryght fowle.” When, he further observes, the disease is so advanced that the infected are “uncleane, spotyd, glemy, and quytery (ichorous,) the Nosethrilles ben stopyl, the Wasen of the Voys is rough, and the Voys is horse, and the Heere [hair] falls.”‡

In addition to the preceding direct medical evidence, it may not be considered irrelevant to the present question, to remark that, in most of the leper-house charters and notices in England and Scotland that I have had access to, the inmates of these institutions are described by the adjective *Leprosus*, or by some application of the corresponding noun *Lepra*, as “*lepra percussi*,” “*infecti lepra*.” I have, however, met with one very striking exception to this general rule, and I allude to it here as confirmatory of what I have stated, with regard to the nature of the disease for which these leper hospitals were instituted in our own country. The leper hospital of Shireburn was, as I have already had occasion to mention, endowed for sixty patients, and was hence one of the largest in England. It was founded in 1181 by Hugh Pudsey, “the jollie Bishope of Durham.” In a MS. History of the Durham Cathedral and Diocese, contained in the Bodleian Library,§ the inmates of the Shireburn Hospital, instead of being termed *Leprosi*, are directly designated *Elephantuosi*. In speaking of the acts of Bishop Pudsey, the MS. states, amongst other things, that he constructed the hospital of Shireburne, and planted in it lepers collected from all parts of the bisophrick. (*Elefantuosos, in Episopatu suo circumquaque collectos, ibidem instituit.*)

Nature of the Leprosy of Scotland.

I have hitherto said nothing to show that the disease in Scotland was of the nature of Greek elephantiasis. During the earlier ages at which it prevailed in this country, medicine was little cul-

* *Rosa Anglica*, p. 1079. The editor, Schopffen, appends to this passage a rubric, stating the above sound counsel, as “*Decretum Joannis Angli de Leprosi.*”

† Pitt places him about 1360, *Eloy*, Vol. ii. p. 354; *Freind*, Vol. ii. p. 293.

‡ From the old translation of Glanville's work, “*De Proprietatibus Rerum*,” by John Trevisa, vicar of Barkley. See *Phil. Trans.* Vol. xxxi. p. 59.

§ *Eccles. Dunelm. Hist.* l. liii. f. 56, a; vide *Monasticon Anglicanum*, Tom. ii. p. 437, a.

tivated, and we have no professional work of any kind left us by the Scottish physicians of that period, from which to derive any evidence on this subject.*

Amidst this dearth, however, of medical writings during the middle ages in Scotland, it gives me pleasure to refer to a passage in one of our earliest Scotch poets, affording proof that the Leprosy of this country was, as on the continent, truly the Greek elephantiasis.

It is well known to the lovers of early Scotch literature that Henryson, a schoolmaster of Dunfermline, who wrote before the year 1500, composed, among other things, the Testament of Cresseid as a sequel to the Troilus and Cresseid of his immediate predecessor Chaucer.† Indulging, like his English prototype, in the wildest forms of anachronism, the Scottish poet confessedly subjects, in almost every particular, the ancient and foreign characters of the piece to the manners, incidents, and institutions of his own times, and of his own country. In this spirit he afflicts, at last, the fickle and unfortunate Cresseid, with leprosy, as perhaps the most appalling of dooms to which he could consign her. The poet, afterwards, sends her “unto yone hospitall at the tounis’ end.” The particular symptoms which he makes Saturn invoke upon Cresseid, to transform her into a Leper, are exactly the most marked symptoms of Greek elephantiasis.

Thy cristall ene (eyes) minglit with blude I mak‡,
Thy voice sa cleir unpleasand, hoir, and hace,
Thy lustie lyre (fair skin) ouirspread with spottis blak,
And lumpis haw (livid*) appeirand in thy face;
Quhair thow cummis, ilk (each) man sall fle the place;
Thus sall thow go begging fra hous to hous,
With cop and clapper like ane Lazarous.

* Bernhard Gordon of Montpellier, whose description of the disease I have already quoted, has been sometimes alleged to be a native of Scotland, see Sprengel's Histoire, ii. p. 447; but without any other evidence whatever than that derivable from his Scottish surname.

† The Testament of Cresseid, compylit be M. Robert Henrysone, Sculemaister in Dunfermeling. Imprintit at Edinburgh, 1593. Reprinted by the Bannatyne Club, Edinburgh, 1824. The poem has been published, without the name of the author, in Godfray's and most other later editions of Chaucer's Works.

‡ This complication was not so common as to be regarded as a constant and pathognomonic sign of Greek elephantiasis, but it is noted as an important and frequent one, by various authors, both ancient and modern. Hally-Abbas tells us in our diagnosis of a case of the disease, to be particular in examining “album oculorum ne forte turbatum est,” (Lib. i. cap. xxiv.); Rhazes attributes great value as a diagnostic mark of his Juddam or elephantiasis to the “conturbatio albedinis oculorum,” (Lib. v. cap. cxx.); Avicenna, among his incipient signs, states “et apparet in oculis obfuscatio ad rubedinem declivis,” (Lib. iv. Fen. iii. Fr. 3, cap. ii.) Not to multiply examples, I may merely mention that Theodoric, in the thirteenth century, places early among his list of signs “oculorum in albedine lividitas” (Lib. iii. cap.

In this remarkable passage, those more striking symptoms, the swellings, lumps, or livid tubercles on the face, the morbid alteration of the voice and skin, and that turgid and injected appearance of the eye, which Dr Good has given as one of his characteristic symptoms of the *genus* Elephantiasis, are all tersely, yet accurately described. Indeed, if Sauvages, Swediaur, Cullen, or any of our great nosologists of the last or present century, had been poets, I greatly doubt whether, with all their medical knowledge to boot, they could, in four fettered lines of rhyme, have described the Greek elephantiasis more faithfully and briefly than we have it described in the four first lines that I have just quoted from the Dunfermline schoolmaster of the fifteenth century. Henryson's account of a leper may not be so poetically beautiful, but it is pathologically much more true than that which the American poet, Willis, has recently given of the disease in his well-known poem of Helon. We shall afterwards find that "the cop and clapper," alluded to in Henryson's two last lines, were badges commonly carried by the inmates of the leper hospitals of Scotland.

In passages subsequent to that which I have quoted, Henryson reiterates some of the more prominent symptoms. Thus, the hapless Cressid afterwards describes what is elsewhere termed "her uglyc lipper face, the whilk before was quhite (white) as lilic flour," as "deformed in the figour;" and again also she describes and laments the characteristic morbid change in the voice ;

My cleir voice and my courtlie carroling
Is rawk (rank) as roke, full hidcous, hoir, and hacc."

But I have still further and stronger proof to adduce that the Leprosy of the Scotch was the Tubercular Lepra or Greek elephantiasis. It has been already stated that the disease continued to prevail in the Shetlands, apparently long after it had left all the more southern parts of the British Islands. We have found

lv.) ; see also Lanfranc, (Doct. i. Tr. iii c. 7, albedo oculorum obfuscator) ; Arnald of Villeneuve (Brev. ii. c. 46, multum rubeae) ; Gilbert (Lib. viii. oculi circulos habent rubros), &c. Dr Heberden, in his account of the tubercular leprosy in Madeira, states, in regard to a case, "that the confirmed elephantiasis was attended with *livid* and scirrhus tubercles, which had overspread the face and limbs ; the whole body was emaciated, the eyebrows inflated ; the hair of the eyebrows fallen off entirely ; the bones of the nose depressed ; the *alae nasi* tumefied, as likewise the lobes of the ears, with a *suffusion in both eyes*, which had almost deprived the patient of sight, &c. Medical Transactions of the College of Physicians, Vol. i. p. 35.

I give the term "*livid*" as synonymous with the old Scotch term "*haw*," under the idea that it expresses in all probability, as nearly as possible, the meaning of the author. The Scottish writer Gawin Douglas renders the Latin adjectives "*caeruleus*" and "*glaucus*," by the adjective "*haw*," in his celebrated translation of "The xiii. bukes of Eneados of the famose poet, Virgill, out of Latync verses, into Scottish meter." For the occasional livid colour of the lumps or tubercles in the face, see the extract in the preceding note from Dr Heberden, and the modern descriptions quoted in a previous page from Bateman and Schedel.

Brand stating in 1700,* the disease to be “discovered (I quote his own words) by hairs falling from the eyebrows, the nose falling in, &c.” I have shown also that in some districts of Shetland, the disease continued to a later date, and that down to 1742, the infected were kept in the island of Papa, or, as it is sometimes written, Papastour. Through Mr Charles Duncan, who has kindly exerted himself in Shetland to procure me information on the present subject, I have been favoured with the sight of an old, but important document, relative to the lepers of Papa, and the symptoms under which they laboured. The document in question was, as Mr Duncan informs me, drawn up for Sir John Pringle, by the Rev. Andrew Fiskén, minister of Delting, Walls, and Sandness. The old copy I refer to, belongs to the Rev. James Barclay, (son of the late Dr Barclay of Lerwick), and I publish its contents with his permission. The minute description which it gives of the symptoms in the Lepers of Shetland can leave no doubt as to the disease under which they suffered, being the true Tubercular leprosy or *Elephantiasis Græcorum*, and the value of the evidence which it affords on this point, is only increased by the fact, that the writer did not himself belong to the medical profession. The importance of the document must plead as an excuse for its length. The copy which is quoted below is marked on the back in an old handwriting, “Case of the Lepers in Papa, as drawn up by Mr Andrew Fiskén, about the year 1736 or 1737.” It proceeds as follows:

“There are in the island of Papastour in Zetland, five women who labour under a disease that, generally in this place, gets the name of Leprosie, though others alledge it deserves rather to be called a scurvy. The disease has the following appearances, viz.

“The persons affected at first find an unusual itching in their skin, with small, knotty, hard lumps to be felt under the cuticle; their whole body appears plumper than ordinary, and their eyes are observed to be clearer coloured, with a look more piercing than formerly. Their face and legs are full of small lumps or hard tumours, which in a little suppurate and throw out a black, thin, ichorous matter, and gradually encrease, especially in the face, till they turn confluent. It is also observed that where these lumps do not appear, the skin feels hard and callous, like a piece un-

* Since writing the above, I have met with the following interesting notice in the still earlier voyage of Martin to St Kilda, the most westerly island of the Hebrides. Describing his visit to St Kilda, in 1697, he states, “Some thirteen years ago, the Leprosy broke amongst the inhabitants, and some of their numbers died of it. There are two families at present labouring under the disease. The symptoms of it are, their feet begin to fail; their appetite declining; their faces becoming too red, and breaking out in pimples; a hoarseness, and their hair falling off from their heads: the crown (?) of it exulcerates and blisters; and, lastly, their beards grow thinner than ordinary.”—Voyage to St Kilda, (first published in 1698,) p. 40 of edition of 1749.

wrought leather, and the cuticle smoother than ordinary, and unctuous or greasy, which appears from pouring water into the palms of their hands, where it will separate into small globules, such as appear when water is poured out of a greasy vessel. The extraordinary plumpness, or rather swelling of the body, observed in the beginning of this disease, does, in a few months, disappear, and they turn very lean and weak, only their face always, and sometimes also their legs, continue swelled. A great many little lumps like small hard seeds are then to be felt everywhere under their skin, which gradually increase till they break out externally, throwing out a foetid thin ichor, which ceases to run in a little time, and a hard scab covers the part, which sometimes dries, and, falling off, leaves the skin entire; at other times breaks out again, and runs as before. The hair falls off from their eye-brows, and they have their throats much inflamed, especially the uvula, which is gradually (and after some years continuing under the disease) entirely destroyed. Their voice is so weakened that they cannot speak louder than one whispering. They have frequent flushes of heat in their skin, which is succeeded by an universal chilliness, and they are not at that instant able to suffer the cold air without a very acute soreness in their skin. As the disease encreases, it appears still the more frightful and loathsome; their face, full of large and deep ulcers, resembles somewhat a lump of rotten cork; their gums and teeth are quite rotten, and in the night-time they are much troubled with deep-seated pains in their bodies, and have in the day-time frequent stitches and pains in all parts of their body, with a general weight and inactivity of their limbs. The women also cease to have their menstrua upon their being seized with this distemper. Their appetite and digestion is as good as ordinary; their stools regular; nothing extraordinary to be observed in their urine. They sleep pretty well, but seldom or never sweat any.

“ This disease is found by experiment to be very infectious, and seems also to run in blood, most people that have taken it without infection from another having been related to three families in the isle. It affects any age or sex, and it is observed that young persons bear it longer than those of a more advanced age, some having lived ten years under it, others only two, some four, some six, &c., but none ever recover after the symptoms above-written do appear. The persons that fall into this direful case are, as soon as it is observed, obliged to retire to a solitary little hut, built on purpose for them, at a distance from all houses, and are not allowed any converse with their husbands, wives, or nearest relations, but have their necessaries of life furnished them by a contribution from all the inhabitants of the isle, and brought to their hut, which they

take in when the person who brought it has retired to the windward of their house at some distance.

"There has never been any cure of this disease attempted here, save that a few years ago a young woman in a neighbouring parish had some bolusses of mereury given her in order to a salivation; but some dangerous symptoms appearing, the administrator thought fit to proceed no further, and the patient continues still alive in the same case she was before taking the mercury."

In the voluminous MS. Medical Notes, bequeathed by Sir John Pringle to the College of Physicians of Edinburgh,* I find a copy of the above account of the Papa Lepers. Sir Andrew Mitchell of Westshore seems to have transmitted the account to him without giving any notice of the writer of it. It is entered in Sir John's notes, under the date of 1759; but it was without doubt drawn up many years previously. I have already alluded to an entry in the Session Records of Walls, regarding the disappearance of leprosy from that parish and district in 1742. The entry seems to have been made at a sitting of the session "at North-house in Papastour;" and its expressions † show that, at the date of it, (17th March 1742), there were no lepers in Papa. From the MS. extracts furnished to me by Mr Rannie, session-clerk, it appears that there is only mention of one other instance afterwards in the session books of the parish, viz. in December 1772 and 1776. The female who was the subject of it, and whose case is represented in the records as "singularly clamant," was ordered to be provided at the expense of the session, "with back and bed clothes, a house fit for her to lodge in, and maintenance to be brought to her daily at the house." Mr Rannie further states, "I have been informed by old persons, that she lived but a short time after she was put into the house built for her in the common, at a distance from other houses." He adds, "It has been reported to me that in Papa, about the year 1778, a leprous woman was put out and died in the fields before a house could be built; and that about the same time, there were leprous persons in the district of Watness, and that the son and daughter of a

* MS. Medical Annotations, Vol. iii. p. 226.

† "The Moderator proposed to the session, that, considering that a Gracious Providence had not only delivered the Island and country from the burden and necessity of maintaining and otherwise providing for the poor Lepers, formerly in this Island, but had also put a stop to the spreading of that unclean and infectious disease, so that there is no appearance of the symptoms thereof in any person now in this place, the Session should therefore ordain a day to be set apart for solemn thanksgiving for so great a deliverance throughout this ministry excepting Fowla, which we can have no access to probably to inform. The Session having heard the Moderator's proposal were cordially satisfied therewith, and did agree unanimously that a day be set apart for solemn thanksgiving on the above account throughout the bounds of the ministry excepting Fowla, as above said." Extracts from the MS. Session Register of Walls, under date of 17th March 1742. The 19th May 1742 was held as the day of thanksgiving, as appears from a subsequent entry.

man Henry Sinclair were infected and sent to the hospital at Edinburgh."

At a still later date, a case of Shetland leprosy was detected in the Edinburgh Infirmary. In 1798, a male patient from Shetland was for some time in the hospital wards, under the care of various physicians. As the form of disease under which he laboured was considered as very anomalous, Dr Thomson was requested by Dr Hamilton to visit the patient, and detected the case to be one of Greek Elephantiasis. I am kindly permitted to extract the following notes of the case from Dr Thomson's manuscripts:—

"His face was studded all over with small subcutaneous tubercles. The skin over these tubercles was of a reddish colour, intermixed with blotches, like those which occur in the *pityriasis versicolor*. The hair of the eyebrows and eyelids had fallen off, and the skin of the face, as well as of most of the rest of the body, seemed as if smeared with oil. His voice was weak and hoarse, so that he seemed to speak as in a whisper. On inspecting the fauces, they appeared in some places raw and excoriated, and in others rough and puckered. A slight ulceration was perceptible on the *septum narium*, and the nose seemed a little depressed. In various parts of the body, particularly on the arms, thighs, and legs, besides the small subcutaneous tubercles, other larger ones were to be perceived by feeling for them. These larger bumps or tubercles, which were not perceptible to the eye, and which did not occasion any discoloration of the skin, were without pain, and had a striking resemblance to the tubercles occurring in the flesh of those affected with scurvy."

The patient, John Berns, was 28 years of age. On making inquiry, it was found (as I am informed by Dr Thomson) that some of his ancestors had been affected with the same disease.

An accurate drawing of the morbid appearances presented by Berns' face was made at the time by Mr Syme, now Professor of Drawing in the Dollar Academy.* A copy of this drawing, with a history of the patient's ailments, were forwarded to the late Dr Willan; and I have Dr Thomson's authority for stating, that Dr Willan at once declared it also as his opinion, that Berns' case was a genuine instance of the Tuberculous Leprosy or *Elephantiasis Græcorum*; a disease of which, as he informed Dr Thomson, he had only seen one example in a patient shown him by Dr Baillie.

Let us for a moment recapitulate the preceding evidence, with regard to the nosological nature of the English and Scottish Leprosy:—*First*, various authors who personally witnessed the leprosy of the middle ages upon the Continent of Europe, in describing it, have described a disease having all the most charac-

* Plate V. Fig. 1, presents a sketch of Berns' case, from a drawing by Mr Syme, in Dr Thomson's possession.

teristic symptoms of Greek elephantiasis. *Secondly*, in England a cutaneous disease prevailed at the same period, bearing the same name,—presenting the same chronic incurable character,—having its victims subjected to the same civil laws and restrictions,—marked (as we know from Gilbert, Gaddesden, and Glanville's observations and writings), by the same train of nosological symptoms—and hence identical in nature with the Continental disease, and with the elephantiasis of the Greeks. *Thirdly*, in Scotland we find a malady having the same similarity in its general date,—in its name,—in its course,—and, in the civil regulations enforced regarding it,—with its symptoms as they are accidentally described by Henryson in the sixteenth century, identical with those of Greek elephantiasis. *Fourthly*, in a part of the country where the disease has continued to prevail down to a later period, the infected, as described by eye-witnesses in the earlier part of the last century, presented the most unequivocal signs of the affection alluded to. And, *lastly*, we have as high medical evidence as could be adduced in regard to cutaneous affections (the evidence, namely, of Drs Willan and Thomson) for asserting that the malady, as seen in the member of a Shetland family in which it had been hereditarily transmitted,—and, hence, in one of the last, if not the very last Scotch leper, was decidedly marked by the true and genuine characteristics of the *Elephantiasis Græcorum*.

LEPROSY IN THE NORTHERN COUNTRIES LYING NEAREST TO SHETLAND.

On a former occasion I alluded to the existence of true Tubercular leprosy in the neighbouring Faroe Isles, in Iceland, and the nearest coast of Norway, as corroborative of the disease which has long existed in the Shetlands, being of the same nosological nature. I might now, if additional proof were necessary, reverse the order of the evidence which I have just brought forward, and proceed to show at length that the disease which long existed, and still does remain in Bergen and Iceland, and for which leper hospitals also are still maintained in these localities, is, in reality, the Tubercular leprosy or Greek elephantiasis; and, from this point, argue back, that the disease which formerly prevailed in Shetland,—and, if in Shetland, in Scotland generally,—was of the same nosological nature. On this head, however, I shall content myself with offering a very few observations in proof of the specific character of the malady in the districts lying most contiguous to Shetland, and leave without further comment the inference deducible from such evidence.

In the Faroe Isles.—These islands form the nearest land north of the Shetlands. The great cutaneous disease which formerly infected the inhabitants of Faroe had all the characters of tubercular

leprosy. In proof of this, I may appeal to the description of the malady, given in the seventeenth century by Debes, who was Provost of the churches in these islands, and wrote an account, which was much esteemed at the time, of the country and its inhabitants. He observes, "as for the Leprosy itself I would not omit, for the reader's sake, to mention something of its nature. Physicians write that there are three sorts of Leprosies; namely, Tyria, from the serpent Tyrus. In this leprosy, the patient's skin is soft, and sometimes falleth off in shells, and they have many spots and white wartes thereon. The second is called Alopecia, by reason the hairs fall off as those of a fox; he that is infected with this leprosy hath a red face, and his beard and eyebrows fall off. The third sort is called Elephantiasis, from the elephant, to whom they become like in their skin; the body and face of him that is infected with this disease is full of knobs. The Leprosie wherewith they are troubled in this country is usually Elephantiasis, for the face and limbs of almost all the infected are full of blue knobs, that break out sometimes as boyls, whereby they look very deformed in the face, being besides all hoarse, and speaking through their noses."*

Iceland.—That the leprosy of Iceland (the next land north of the Faroe Isles), is of the nature of the *Elephantiasis Græcorum*, is a point which might be proved by any of the descriptions of it by Petersen, Troil, Henderson, and Holland.† Dr Holland's account is more concise than the others. He states:

"The leprosy of the Icelanders, (*Likthra*, *Holdsveike*, or *Spi-telska*), exhibits in many instances all the essential characters of the genuine elephantiasis or *Lepra Arabum*; and is a disease of the most formidable and distressing kind. Indolent tumours of the face and limbs are, generally, among the first symptoms of the complaint, attended by swellings of the salivary, inguinal, and axillary glands. The nostrils, ears, and lips are progressively affected with swelling deformity. The skin over the whole, or different parts of the body, becomes thick and hard; sometimes exhibiting a shining or unctuous surface, sometimes one rough and scabrous, which, at a more advanced period of the disease, displays numerous cracks or fissures. The senses are usually much enfeebled; and anæsthesia of the extremities generally occurs. The voice assumes a peculiar hoarseness and nasal tone, frequently with swelling of the tonsils, but without any hindrance of deglutition, until the disease has made great progress in the habits of the patient: the breath and perspired matter are extremely fetid; and the hairs and nails frequently fall off. The tumours in different parts of the body gradually pass into malignant ulcers, which

* Færøe et Færøa Reserata (London, 1659), p. 310-11.

† See figures of Iceland Lepers in Plate V. Fig. 3, 5, 7.

discharge an acrid unhealthy matter; in this state the patient often lingers during a long time; or where the disease has a more speedy termination, all the symptoms are rapidly aggravated, and he is carried off in a state of extreme debility and wretchedness.”*

The Lepers in Iceland are received into four different hospitals, which have been long established for that purpose.†

Norway.—Returning again to Shetland as a starting point, we find that the part of the Continent of Europe which lies nearest to Shetland, and that in nearly a direct line westward, is the district of Bergen in Norway. The distance between Shetland and the seaport of Bergen does not exceed thirty geographical degrees. In the first part of the present essay, I offered some reasons for believing that the Spedalskhed prevalent in Bergen was a disease different, on the one hand, from the Radesyge of other parts of Norway, and probably identical on the other hand with the Greek elephantiasis or Tubercular leprosy.

The descriptions of those authors who had observed the disease at Bergen seemed to justify this view. In 1751 Pontoppidan, the Bishop of Bergen, cites the account and words which we have above quoted from Debes in reference to the Faroe Isles, as exactly applying to the disease in the district of Bergen. When it at last (he states) breaks out in ugly boils on the face, they are generally sent to hospitals erected for that purpose, of which there is one at Bergen and another at Molde in Romsdalen.‡ The excellent account of the disease in the Bergen Hospital, which was drawn up a few years ago by the preacher Wellhaven, shows the malady to correspond in every important particular with the Greek elephantiasis;§ and the long and more strictly medical description of the Bergen disease given in 1786 by Buchner,|| appeared to be altogether confirmatory of the same opinion. I have lately become acquainted with a proof to the same effect of such a strong character as to render it supererogatory to adduce the detailed descriptions of Buehner or Wellhaven in evidence. The Norwegian Government has recently, (and with an anxiety towards the promotion of medical science that reflects little honour on the other richer courts of Europe,) commissioned some of its more distinguished physicians to institute a complete inquiry into the nature of the endemic cutaneous diseases both of Norway and of other localities. Since the former part of the

* Mackenzie's Travels in Iceland during the summer of the year 1810, or Edinburgh Medical and Surgical Journal, Vol. viii. p. 202-3.

† Von Troil's Letters on Iceland, p. 123; Barrow's Visit to Iceland in the summer of 1834, p. 289 and 294.

‡ Pontoppidan's Natural History of Norway, containing an account of its Climate, &c. &c. (London translation, 1755), p. 261, 262.

§ See Wellhaven's account extracted from the Transactions of the Stockholm Society, Vol. iii. p. 188—200, into Hufeland's essay on Radesyge, p. 38—56.

|| See p. 110—117 of the excerpta in Hensler's learned work, “ Vom Abenländischen Aufsatze im Mittelalter.” (Hamburg, 1790.)

present paper was printed, Dr Fäye of Christiana has, as one of these Commissioners, visited this country with the purpose of examining into the nature of the Scottish sibbens, &c.; and I have learned from him with pleasure that the physician sent to Bergen to examine the Spedalsked, is prepared, after a careful study of the disease there, to report it as Tubercular leprosy, and hence a species of malady perfectly distinct from the more general Scandinavian Radesyge.

The date of the first appearance of leprosy in the Faroe Isles and in Iceland seems to remain undetermined.* In both localities it appears to have prevailed severely in the 15th and 16th centuries.† In all probability, however, it was introduced long previous to these dates. At all events, it appeared much earlier in Bergen, for, as I have already stated in the first part, one of the Leper hospitals in that city was founded as early as the year 1268.

There is no evidence, as far as I know, of the period of its first appearance in Shetland. It had reached, however, as far as the north of Scotland early in the 13th century; for as we have already shown, the leper hospital of Elgin was in existence in the year 1226,‡ or more than forty years, at least, previously to the institution of similar receptacles for the diseased in Bergen.

ERRORS IN ADJUDGING INDIVIDUALS TO THE LEPER HOSPITALS—CAUTIONS INCULCATED BY THE MEDICAL AUTHORITIES.

While arguing, as I have done in the preceding paragraphs, to show that the epidemic leprosy for which so many lazaret-houses were formerly founded in Europe and in Great Britain was the Greek elephantiasis, I by no means wish to insist that patients affected with that disease alone were admitted into these receptacles. There is only too great a probability for the belief, that persons who had the misfortune to be affected with any foul and inveterate cutaneous malady, were isolated and shut up along

* The disease seems to be noticed under the name of Skyrbjugur in some of the oldest Iceland records. (See Olassen's *Islansk Urtaagaard Bok*. p. 172; and Baek in Von Troil's *Letters on Iceland*, p. 324.) Munk and Hunefeld suggest, with no great probability, that it might have been carried to the north by the expeditions which, during the 9th and 10th centuries, were made upon the Norman coast by Rolf and others. (See Hunefeld's *Radesyge oder das Scandinavische Syphiloid*, p. 57.)

† I have already referred to Bartholin in relation to its former prevalence in the Faroe Isles and Iceland. Writing in 1672, he states that in these parts leprosy "*fuisse olim familiarem*," (de morbis Biblicis in *Mis. Med.* p. 41.) Jonas, Pastor of Hitterdale in Iceland, wrote in 1662 to the celebrated Sir Thomas Browne, "*Nullus elephantiasi vel abominabilior vel pestilentior hic existimatur, et tamen postremo hoc seculo pavendus se diffundit.*" (Wilkin's edition of Sir Thomas Browne's Works, including his *Life and Correspondence*, Vol. iv. p. 261.)

‡ The date of admission to the Church of one of the Priors of the Hospital.

with those actually labouring under true leprosy. After Syphilis appeared towards the commencement of the 16th century with some analogous symptoms, and when the Elephantiasis itself was already disappearing from most localities, we know for certain that a large proportion of the inmates of the Continental lazarettos consisted of cases of secondary venereal and other severe skin affections. Dr Bateman* adduces the strongest possible evidence in proof of this from the direct and personal observations made in the 16th and 17th centuries in the leper hospital at Ulm by Horst, at Alcaer by Forrestus, and by Reedlin at Vienna. Similar errors were in all probability only too common even when the elephantiasis was more common and better known. And I believe I can adduce one piece of casual proof to show that in Scotland patients were occasionally consigned to our leper hospitals that were not the victims of genuine Leprosy. Elephantiasis never confines itself to an upper extremity, and there produces scabs. Yet in one case, at least, a patient affected with an extensive eruption of scales merely on one arm, (in all probability a case of psoriasis or impetigo,) seems to have been an inmate of the Rothfaun Leper Hospital. In some old Elgin MS. records lately published,† the case is alluded to, though certainly very incidentally. But I may quote the whole of the brief passage in which it occurs, though the passage itself is assuredly much more illustrative of the psychical than of the physical pathology of our forefathers.

“The whilk day, (the ‘whilk’ unfortunately not being given,) ane gret multitude rushinge through the Pannis port (of Elgin,) surroundit ye order (or ordeale) pool, and hither wis draggit through ye stoure ye said Marjory Byssetth, in sore plight, wid her grey haire hanging loose, and crying ‘Pitie ! Pitie !’ Now Maister Wiseman, the samin clerk, who had stode up at her tryal, stepped forward, and saide, ‘I kno this womyan to have been ane peacable and unoffendynge ane, living in ye privacy of her widowhoode, and skaithing or gainsaying no ane. Quhat have ye furthir to say again her ?’ Then did ye Friarics agen repeate how that she had muttered her Aves backward, and othirs that ye maukin (hare) started at Bareffet, had ben traced to her dwellinge, and how that the aforesaid cattal had died by her connivance. Bot she hearing this cried the more ‘Pitie ! Pitie ! I am guiltless of ye fausse crymes, never sac much as thought of be mie.’ Then suddenlie there was ane motion in ye crowd, and ye peopel parting on ilk syde, ane *Leper* cam down frae ye Hous, (the leper house,)†

* Synopsis of Cutaneous Diseases, p. 419.

† Rhind's Sketches of Moray, (1889,) p. 62 ; or Fullarton's Gazetteer of Scotland. Vol. i. p. 494. Foot-note with remarks by my friend, Mr Dove.

‡ See Account of Rothfaun Leper House near Elgin in Part I.

and in ye face of ye pöpel bared his hand and his haill airm, *ye which was wythered and covered over with scurfs, most pyteous to behold*, and he said; ‘At ye day of Pentecost last past, thys womyan did give unto me ane shell of oyntment, with ye which I annoynted my hand to cure ane imposthume which had cum over it, and beholde, from that day furthe untill thys, it hath shrunk and wythered as you see it now.’ Whereupon ye crowde closed rounde and becam clamorous; but ye said Marjory Bysseth cried pyteously, that God had forsaken her—that she had meanyed gude only and not evil—that the oyntment was ane gift of her husband, who had been beyond seas, and that it was ane gift to him from ane holy man, and true, and that she had given it free of reward or hyre, wishing only that it mote be of gude; but that, gif gude was to be payed back with evil, sorrow and gif Sathan mot not have his owin. Whereupon the pöpel did presse roun and becam clamorous; and they tak ye womyan and drag her, amid mony tears and cryes, to ye pool and crie, ‘To tryal! to tryal!’ and soe they plonge her in ye water. And quhen as she went down in ye water, there was ane gret shoute; bot as she rose agayne and raised up her arms, as gif she wod have com up, there was silence for ane space, when agane she gaed doune with ane bubblinge noise, and they shouted finallie—‘to Sathan’s kyngdome she hath gane,’ and forthwith went their wayes.”

We can easily conceive that gross mistakes like the above in the selection of the proper inmates of the hospitals would constantly occur in these times, from the kind of persons to whom the responsible and important task of selecting the infected was entrusted. The Act that we have already quoted of the Perth Parliament “anent lipper-folk” defines those who were charged in Scotland with the duty of searching out the affected. In the third clause it is statute “That the Bishoppes, Officialles and Deanes, inquire diligentlie in their visitation of ilk (each) Paroch Kirk, gif once be smitted (affected) with Lipper, and gif ony sik (such) be foundin, that they be delivered to the king gif they be Seculares, and gif they be Clerkes, to their Bishoppes, and that the Burgesses gar (oblige them to) keepe this statute under the paine contained in the statute of Beggars, [namely, gif they have broken it (the statute of beggars) they sall be in fourtie shillings to the King]; and quhat leprous that keepis not this statute, that he be banished for ever off that Burgh, quhair he disobeyis, and in likewise to Landwart.”*

* Murray’s Edition of the Acts of the Parliament of Scotland, Vol. ii. p. 18. In Shetland, the kirk-sessions seem to have latterly taken upon them the legal powers conferred by the above act upon the bishops and other ecclesiastical authorities, as shown by the following extract from the Session Records of the parish of Walls. “Kirk of Walls, December 6th 1772.—This day the Session being informed that Margaret Abernethy, relick spouse of James Henry, had been, to all appearance, for a considerable time past, deeply tinted with the inveterate scurvy, commonly called

In extenuation to the above edict, we must recollect that, at the period at which it was enacted, (in 1427), the ecclesiastics to whom in this country it entrusted the selection of Lepers, were in reality the only existing physicians of the general community, and some of them seem to have devoted themselves as much to the practice of medicine as to the study of theology. But even to a strictly non-medical observer, the diagnosis would, in the latter stages, be less free from doubt, than might be at first supposed. For when once the Tubercular leprosy became in any case completely developed in all its distinctive deformity, and with its full concurrence of marked and peculiar external characters, as falling off of the hairs of the eyebrows, swelling and thickening of these parts, tubercles of the face, hoarseness of the voice, &c. there were few or no diseases for which it could be readily mistaken, provided any proper degree of care were taken. In the earlier stages and less marked cases of the disease, errors in the judgment of cases, in all probability, often occurred, and affections that had no relation to elephantiasis, except in their obstinacy and locality, were, we cannot doubt, frequently mistaken for true instances of tubercular leprosy.

Such errors, it has been often averred, would be almost as apt to happen in the hands of the truly medical, as of the non-medical examiners, in consequence of the knowledge and distinction of cutaneous diseases being exceedingly imperfect at these early periods of medical history. And it is certainly true that, in the writings of the older Arabian, Continental, and English physicians, we find almost all the different species of chronic cutaneous disease mixed up and described together under a few general heads and designations, as Lentigo, Impetigo, Morphea, Albaras, Gutta Rosea, &c. Indeed, the proper discrimination and diagnosis of different cutaneous affections was little known and studied until the end of the last century. At the same time, however, it must be recollected that the Tubercular Leprosy or Greek elephantiasis certainly forms a striking exception to this general observation. For, in the medical writings of the thirteenth, fourteenth, and early part of the fifteenth century, the Leprosy is almost uniformly described with a care and a minuteness that strangely contrasts with the superficial manner in which the whole remainder of chronic cutaneous diseases are either passed over or confounded together.

I would willingly appeal, in support of this last allegation, to the different chapters on Leprosy, as compared with those on the other

the Leprosy in this place, and was now removed to Brabaster in the midst of a number of children, whose parents were in the greatest fear of their being infected with that disease, by the said Margaret Abernethy, and that they and others had again and again called upon the Session to convene the said woman before them, in order to be sighted, and also to be set apart, if she should be found unclean, conform to former use and wont, in this and other parishes of the country. Therefore the Session did, and hereby do, appoint the officer, to require said Margaret Abernethy to compare before them at this place, next Wednesday, in order to be examined and inspected, as above said."—Extracted from the MS. Session Records of Walls.

cutaneous diseases, in the works of the Arabian physicians, and of those European medical authors of the middle ages whose writings I have already referred to. Indeed, the accounts and diagnosis of tubercular Lepra, as given by Rhazes, Theodoric, Lanfranc, Arnold de Villeneuve, Gilbert, &c. might well stand as models of medical description even at the present day. And if, in France, the strong and earnest injunctions of Bernhard Gordon were in any degree respected, that no person be adjudged as requiring separation for leprosy until the second stage (according to his division of the disease), had supervened, and the *signa infallibilia* of the malady had already shown themselves in the usual marks traceable in the *corruptio figuræ et formæ* of the suspected individual, cases of unjust condemnation to the lazarett-houses would be much less common than might be otherwise imagined. We have already seen that in England in the fourteenth century, John of Gaddesden inculcated the same salutary rules and precautions, and insisted that no one be separated from the general community as a leper, unless already "*figura et forma faciei corrumpantur*."

Certainly on some occasions the examination to which the patient was subjected, in order to ascertain if he were truly a leper or not, seems to have been of the most searching and scrutinizing nature. I have already alluded to the strict rules of examination that have been preserved for us in the works of different authors, and quoted the method recommended by Guy de Chauliac, to be followed by physicians before they remitted suspected patients with medical certificates to the magistrates, (*cum literis medicorum ad rectores*.) In the *Examen Leprosorum*, published by Gesner, and which appears to have been drawn up as an official formula, if I may so term it, for examining into suspected cases, the details are most elaborate and searching. There are between fifty and sixty signs of the disease which the examiner is requested to look for. Twelve of these signs are taken from the general state of the body; seven or eight of them from the hands and feet; six from the blood; five from the face; six from the mouth; eight from the eyes and eyebrows, &c. &c. The document commences by stating, "that it is the duty of the physician to be versed in, and attentive to, the signs of the disease, and to ponder often (*revolvere multoties*) upon them. He should put his trust, it adds, not in one sign, but in many, and he should see what signs are proper (*propria*) to the leprosy, and what are equivocal." Before making the examination, the document states that (as is also recommended by Guy de Chauliac* and others), the physician should, in the first instance,

* In describing the duties of the examiner, De Chauliac observes, "In primis invocando Dei auxilium debet eos confortare, quod ista passio est salvatio animæ t quod non dubitent dicere veritatem, quia si reperientur Leprosi, purgatorium

give some words of encouragement and consolation to the patient, and show that this disease is the salvation of his soul, and that Christ has not despised such, although the world may shun them (*quod haec aegritudo salus est animae, et tales Christus non desepit, licet mundus eos fugiat.*) Further, in order to have more certainty in the examination, it is added, that the patient should be made, in the first place, to take oath to tell the truth on those points on which he is interrogated. We have already found De Chauliac recommending the examining physician to take the same precaution, "*faciat eos jurare veritatem dicere de interrogendis,*" (p. 310.)

A decree, issued in the year 1314, by Milo, Bishop of Orleans, shows that it was occasionally necessary to guard the examiners against being imposed in other more serious ways, than by direct prevarications or misstatements on the part of the suspected individuals who were subjected to their scrutiny. "Whereas it happens that, in the examination of lepers, mistakes as to identity, and deceptions, are caused by the interposition of other persons, we enact and command, that whenever any person is suspected of the infection of leprosy, he be sent at his own charge if he have effects; but if not, that two responsible men of the parish having been sworn (*jurati*) before the priest and the officers of the church (*gajariis ecclesiae*), be sent at the expense of the parish with the suspected person to obtain the examination; they shall conduct the said suspected person to the said examination, and cause him to be faithfully examined, and bring certificates to us, that it may not be possible that, for the future, collusion should take place in the aforesaid matters."*

I have not hitherto been able to find any evidence showing to whom the examination and seclusion of Lepers was, in olden times, entrusted in England; or to trace out in that kingdom any special laws relative to this subject. There exist, however, upon record, in reference to one English case in the fifteenth century, some details that are particularly interesting in regard to the present point of our inquiry. The details in question have been preserved in Rymer's *Fœdera*. The case to which they refer appears to have been brought under the cognizance of the Crown by the neighbours of the suspected female, in consequence of her being alleged to be affected with leprosy, and yet refusing to seclude herself, as was the usual custom, from intercourse with society in consequence of it. The reigning monarch, Edward IV. issued, in 1468, a Chancery warrant for the proper medical exami-

animae esset; et si mundus habet eos odio, non tamen Deus, cum Lazarum Leprosus plus dilexit quam alios. Si autem non reperientur tales stabunt in pace." P. 310.

* From the "*Statuta Milonis Episcopi Aurelianensis, anno mcccxiv. in Synodo autumnali edita*" contained in Martene and Durand's *Amplissima Collectio veterum Scriptorum et Monumentorum*. (Paris, 1733.) Tom. vii. p. 1286.

nation of this supposed case of the disease. The royal warrant, and the medical certificate which it called forth, have both been preserved by Rymer. I append a translation of these curious documents, as illustrative both of the general dread then still entertained of the malady, and of the minute care which, in this country, was occasionally taken, in order that a just and accurate judgment might be arrived at in cases of doubt and difficulty. The documents are entered by Rymer under the title of “*Medicorum Regis, super morbo Lepre, Certificatio.*” They proceed as follows :—

“ To the most Excellent and most Serene Prince and Lord in Christ, Edward, by the Grace of God, King of England and France, and Lord of Ireland, We, William Hatteclyff, Roger Marshall, and Dominus de Serego, Doctors of Arts and Medicine, your Physicians, and sworn to watch over the health of your Person, send due Reverence with humility and worship ;—

“ Whereas a Petition was made to You in Your Court of Chancery, with regard to removing *Johanna Nightingale* of Brentwoode, in the County of Essex, from general intercourse with mankind, (*a communi hominum consortio*), because it was presumed by some of her neighbours that she was infected by the foul contact of Leprosy, and was, in fact, herself a Leper : Upon which Your writ was then prepared, and afterwards directed to the Sheriff of the said County, in these words :—

“ Edward, by the Grace of God, King of England and France, and Lord of Ireland, to the Sheriff of Essex, Greeting : Whereas We have heard that *Johanna Nightingale* is a leper, and is commonly holding intercourse with the people of the aforesaid County, and mixes with them both in public and private places, and refuses to retire to a solitary place, as is customary and befitting her, (*et se ad locum solitarium, prout moris est, et ad ipsam pertineret, transferre recusat*), to the grievous injury and, on account of the Contagion of the aforesaid disease, the manifest perils of the aforesaid inhabitants : We, willing to guard against such dangers, as far as in us lies, and as is just and customary in such cases, Do charge You, that having taken with You certain discreet and loyal men of the County of the aforesaid *Johanna*, in order to obtain a better knowledge of this disease, You go to the aforesaid *Johanna*, and cause her to be diligently viewed and examined in the presence of the aforesaid men. And if You find her to be Leprous, as was reported of her, then that You cause her to be removed in as decent a manner as possible, from all intercourse with other persons, and have her betake herself immediately (*indilatè*), to a secluded place, as is the custom, lest by common intercourse of this kind, injury or danger should in any wise

happen to the aforesaid inhabitants. Witness my hand, at Westminster, this day of July, in the eighth year of Our reign."

"Wherefore The Reverend Father in God, Robert, by the Grace of God, Lord Bishop of Bath and Wells, Your Chancellor of England, consulted us on this subject, and determined to bring the same Johanna to us, with the intention that, according to what we have learned from our knowledge of Medicine, we should give information to Your Highness in Your Chancery, whether the said Johanna be in fact a Leper or not. We, therefore wishing to obey Your Highness, in order that the truth on this subject might be made most plain and clear, have proceeded after this manner. First, we examined her person, and as the older and most learned medical authors have directed in these case, we touched and handled her (*ipsam tradavimus et palpavimus*), and made mature, diligent, and proper investigation, whether the symptoms, indicative of this disease, were in her or not; and after an examination and consideration of each of the points, which appeared necessary to be examined and considered, in order to arrive at a true knowledge of this doubtful matter, We found that the woman neither had been nor was a Leper, nor ought, on that account, to be separated from ordinary intercourse with mankind.

"We are taught by Medical Science, that the disease of Leprosy is known by many signs, also that each species of the disease, of which there are four, viz. Alopecia, Tiria, Lonina, and Elephantia should be known and characterised by particular signs, and each should be specifically distinguished from the rest. Therefore, in the case of the woman brought before us, on going through upwards of twenty-five of the more marked (*famosiora*) signs of general Leprosy (*Leprae in communi*), we do not find that she can be proved to be Leprous, by them or a sufficient number of them. And this would suffice, generally, to free her from the suspicion of Leprosy, since it is not possible for any to labour under the disease, in whom the greater part of these signs are not found. But, in order to give our opinion on the individual species, going through upwards of forty distinctive signs of the different varieties of Leprosy, we do not find that this woman is to be marked as suffering under any of the four kinds, but is utterly free and untainted, as we have signified by word of mouth to Your Highness in Your said Chancery, and We are prepared to declare the same more fully to Your Highness by scientific process (*per processum scientificum*), if and wherever it shall be necessary.

"In testimony whereof, we, the said William Hatticlyff, Roger Marshall, and Dominus de Serego, have signed our name with our proper hands, and alternately affixed our seals."

To the preceding document, which is one of the earliest, if not

the very earliest, English medical certificate which either historical or medical records have preserved, it is added in the form of a note, "Et memorandum quod praedicti Williclmus Hatteelyff, Rogerus Marchall, et Dominus de Scrego venerunt in Cancellarium apud Westmonasterium, septimo die Novembris, anno praesenti, (1468,) et recognoverunt scriptum praedictum, et omnia contenta in eodem, forma praedieta."*

Explanation of Plate V.

Fig. 1. Case of Tubercular Leprosy from Shetland, (see Berns' case, p. 144.)

2. Case from Madeira, (from Adams.)

3, 5, 7. Cases from Iceland, (from Gaimard.)

4. Case from Java, (from Cleyer and Schilling.)

6. Case in the Hospital de St Louis, Paris, 1836, (from Willis.

8. Case in a boy born of English parents, but brought up in the Bahama islands, (from Bateman.)

(Third and concluding Part in the next Number.)

* Foedera, Conventiones, Literae et cujuscunque generis Acta Publica inter Reges Angliae et aliosquosvis Imperatores, Reges, Pontifices vel Communitates. Vol. xi. (London, 1710,) p. 635.





